

Amendments to the Specification:

Please replace the DESCRIPTION OF THE DRAWINGS beginning on page 2, line 1, with the following amended DESCRIPTION OF THE DRAWINGS:

--FIG. 1 shows an isometric schematic view of the prior art truss type telescope construction.

FIG. 2 shows an isometric schematic view of the present invention utilized in a large aperture portable telescope.

FIG. 3a shows in isometric perspective the construction of the hinged truss beam.

FIG. 3b shows in isometric perspective the construction of the hinged truss beam when folded flat.

FIG. 3c shows in isometric perspective the construction of the hinged truss beam when folded into a highly stiff and rigid state.

FIG. 3d shows in isometric perspective the construction of the hinged truss beam in a curved state.

FIG. 4a, 4b, 4c, 4d, and 4e show the deployment sequence of the present invention.

~~FIGS. 5a and 5b shows details of the rotating deployment ring---~~

Please replace the paragraph beginning on page 5, line 7, with the following amended paragraph:

--Referring to FIG. 3c, representative truss element 20 is seen to be in a straight, rigid orientation. This is caused by the creation of a high cross sectional moment ~~[[if]]~~ of inertia of the triangular cross section. It is noted that such a triangular cross section, while theoretically preferred, is not required for the truss element to become rigid. It has been shown that angular displacements for elements 24 with respect to element 21 of merely 5 degrees causes very significant and adequate rigidifying of truss element 20, even when only a single outrigger beam is constructed. Referring to FIG. 3d, there is shown the flattened strut in a curved state.--

Please replace the paragraph beginning on page 5, line 16, with the following amended paragraph:

--Referring to FIGS. 4a-e, there is presented the deployment sequence from a stowed state of minimized volume (FIG. 4a), to deployed and rigid locked state of maximized volume (FIGS. 4c, d, and e). Referring to FIG. 4a, there is shown the present invention in a partially disassembled state for storage and transport. Truss elements 20a-h are in their flattened and simultaneously curved states. Since the array of truss elements are equally spaced around the peripheries of end rings 11a, 11b, and 12, the net axial forces are balanced to effect zero net load on the collapsed structure, thus making it stable, and requiring little to zero holding force to keep it in this position. Referring FIG. 4b, there is seen the present invention in a minimum volume assembled state. Referring to FIG. 4c, there is shown the beginning of the extension process, wherein upper tube assembly 27 is pulled or extended away from rocker assembly 28. It is possible to also add automated means to allow for a controlled deployment, but in the present invention, upper tube assembly 27 is very easily lifted away from rocker assembly 28. Referring to FIG. 4d, truss elements 20 assume their straightened, but flattened, state. In this state, the entire structure lacks substantive rigidity, as adjacent truss elements are positioned in parallel pairs 20a/b, 20c/d, 20e/f, and 20g/h. These pairs have nearly equal length attachment points, as can be seen from FIG. 4d. Referring to FIG. 4e, there is witnessed a rotation of deployment ring 12 which in the preferred embodiment is shown as the outer of the two rings 11b, and 12. These concentric rings 12 and 11b allow for alternating attachment of truss elements 20a-h. Attached to fixed inner ring 11a are truss ends 20a,c,e,g. Attached to outer rotationally moveable deployment ring 12 are affixed truss ends 20b,d,f,h. Thus, in the stowed state, deployment ring 12 is rotated to create parallel pairs of trusses 20a/b, 20c/d, 20e/f, and 20g/h. This is necessary in that all truss elements are of about equal length in order to triangulate into the fully rigid deployed truss structure of FIG. 4e. In order for truss pairs 20a/b, 20c/d, 20e/f, and 20g/h have equal curvatures when stowed, given that each pair shares a common attachment point on upper tube assembly end ring 11a, outer deployment ring 12 therefore rotates to bring opposing ends of each pair very close to one another as shown in FIG. 4d. After initial deployment to the state shown in FIG. 4d, outer deployment ring 12 rotates with respect to inner ring 11b by somewhat less than 90 degrees, to effect a separation and triangulation of truss pairs 20a/b, 20c/d, 20e/f, and 20g/h. This condition is shown in FIG. 4f. Finally, all trusses become very stiff and rigid by folding truss outrigger beams 24 with respect to central beam 21 to create a triangular cross sectional moment of inertia, as shown in FIG. 2.--